

Welcome to PANIC '05

- A special place at a special time of year
- A great scientific program
- The Local Organizing Committee has tried to anticipate your needs
- Your packet



Meeting Procedures

- Announcements
- Please mute your cell phones and pagers
- Questions
- Speaker Ready Room – De Vargas, El Dorado
(Mo-Th: 7:30 AM-6 PM, Fr: 7:30 AM-4 PM)
- Talks to panic05.lanl.gov ASAP
- Parallel Sessions
- Coffee Breaks
- Message Board
- Companions' Program
- Best Talk Awards
- Internet Café – Aspen Room, Hilton
(Mo-Th: 7:30 AM-10 PM, Fr: 7:30 AM-4 PM)



Student Program

- Hot Topic Lectures
- Reception
- Poster Session
- The overall experience



IMPORTANT NOTICE TO AUTHORS

Panic05 Proceedings Volume

1. The proceedings will be published by the American Institute of Physics (AIP) in their “**Conference Proceedings**” series.
2. **DEADLINE** for all contributions is **Friday, January 2, 2006**.
3. **PAGE LIMITS**: For invited talks, 9 pages; for contributed talks, 3 pages.
4. **MANUSCRIPT PREPARATION**: Both LATEX and Word templates will be provided. All manuscripts must follow AIP rules regarding page layout, typeface, equations, figures, etc. Please do not attempt to change the formats. All instructions can be found on the PANIC05 website at: panic05.lanl.gov.
5. **MANUSCRIPT SUBMISSION**: All manuscripts must be submitted before the above deadline to: panic05.lanl.gov.
6. **COPYRIGHT RELEASE**: The responsible author for each [manuscript](#) must fill out completely and sign the attached **AIP Copyright Release Form** and turn it in to the Conference Secretariat **before the end of the conference**.

Thank you! We look forward to including your contribution in the conference proceedings volume and to its publication in a timely manner.





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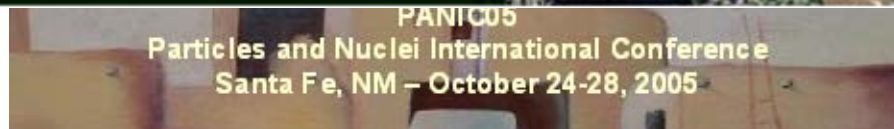
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9/02

PANIC05
Particles and Nuclei International Conference
Santa Fe, NM – October 24-28, 2005



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Last Chance

Hilton 2:30-3:30 PM



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Fat Man

The bomb used in the attack was built in the late 1940s and used for training an anti-aircraft gun which had a nuclear design. It is identified in shape and size to Fat Man, the bomb dropped on Nagasaki on August 9, 1945. This type of bomb was tested at Trinity Site in southern New Mexico on July 16, 1945.

- Weight — 10,000 pounds
- Length — 100 inches
- Diameter — 40 inches
- Yield — equivalent to 21,000 tons of TNT
- Fuzing material — Plutonium-239

One of the two biggest atomic bombs, Fat Man was named for Major General, Thomas S. Church, the nuclear director.

How it works

Fat Man, which was designed and built at Los Alamos, was a large area bomb. It consisted of a core of plutonium-239 surrounded by a layer of uranium-235. The bomb was designed to explode when the two materials were forced together. The bomb's design was based on the principle of critical mass, which is the minimum amount of material needed to sustain a nuclear chain reaction.

Subcritical mass of plutonium-239

Subcritical explosion

Supercritical component mass

Supercritical explosion

